

Claims:

1 1. Power supply protection apparatus comprising:
2 a diode for limiting a flow of electric power to one direction, said diode being provided in
3 a power line that enables power supply within a predetermined range of said electric
4 power;
Sub A2
5 a voltage sensor for detecting a voltage value of said power line; and
6 a switch unit for disconnecting said power line when a voltage value detected by said
7 voltage sensor is greater than a predetermined value, and connecting said power line
8 when said voltage value detected by said voltage sensor is less than said
9 predetermined value.

1 2. Apparatus according to Claim 1 wherein said switch unit includes a transistor
2 element.

1 3. Apparatus according to Claim 1 wherein said switch unit includes a limiting element
2 for supplying a predetermined electric power value in a direction opposite to said one
3 direction when said power line is disconnected.

1 4. Apparatus according to Claim 1 wherein said predetermined voltage value is less
2 than a dielectric strength voltage value of a component operated with electric power
3 supplied from said power line, said component being provided upstream of said one
4 direction.

1 5. Apparatus according to Claim 1 wherein said power line is connected to a terminal
2 for connecting to a power line of a device conforming to the IEEE1394 standard.

1 6. A computer system comprising:

2 a battery for supplying electrical power over a power line;

3 Sub 4 data processing circuitry connected to said power line and supplied with electrical
4 power by said battery, said data processing circuitry having associated therewith a
5 withstand voltage value above which at least a portion of said data processing circuitry
6 is not designed to operate;

7 a terminal connected to said power line, for connecting said computer system to at least
8 one external device over a bus;

9 9
10 10 system protection circuitry connected to said power line, disposed between said data
11 11 processing circuitry and said terminal, for protecting the data processing circuitry from
12 12 voltages greater than said withstand voltage value caused on said power line by said at
least one external device; the protection means comprising:
13 13 a diode provided in said power line;

14 14 a voltage sensor for detecting voltage values of said power line at said terminal and,
15 15 switching means, responsive to a detection by said voltage sensor of a voltage value
16 16 greater than a predetermined value, which predetermined value is less than said
17 17 withstand voltage value, for disconnecting said power line, and responsive to a
18 18 detection of a voltage value lower than said predetermined value to connect said power
19 19 line.

1 7. A computer system according to claim 6 wherein said bus conforms to the IEEE1394
2 standard.

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